KX 12

# Alta Mesa Resources, Inc.

# Reserves Discussion and Contrast of Production Data and Public Sales Data March 2018



#### Case 4:19-cv-00957 Document 668-13 Filed on 02/16/24 in TXSD Page 3 of 14



#### FORWARD-LOOKING STATEMENTS

The information in this presentation and the oral statements made in connection therewith include "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1934, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements, other than statements of present or historical fact included in this presentation, regarding our strategy, future operations, financial position, estimated revenues and losses, projected costs, prospects, plans and objectives of management are forward-looking statements. When used in this presentation, including any oral statements when used in this presentation, including any oral statements oral thin such identifying words. These forward-looking statements are based on management's current expectations and assumptions about future events and are based on currently available information as to the outcome and timing of future events. We caution you that these forward-looking statements are based on currently available information as to the outcome and timing of future events. We caution you that these forward-looking statements are subject to all of the risks and uncertainties, most of which are difficult to predict and many of which are beyond our control, incident to the development, production, gathering and sale of oil, natural gas and natural gas ilquids. These risks include to, commodity price volatility, low prices for oil and/or natural gas, global economic conditions, inflation, increased operating costs, lack of availability of drilling and production equipment, supplies, services and qualified personnel, processing volumes and pipeline throughput, uncertainties related to new technologies, geographical concentration of operations of our subsidiaries Alta Mesa Holdings, LP ("Alta Mesa") and Kingfisher Midstream, LLC ("KFM"), environmental risks, weather risks, security risks, drilling and other operating risks, regulatory changes, the uncertainty inherent in estimating oil and natural gas reserves and in projecting fut

#### RESERVE INFORMATION

Reserve engineering is a process of estimating underground accumulations of hydrocarbons that cannot be measured in an exact way. The accuracy of any reserve estimate depends on the quality of available data, the interpretation of such data and price and cost assumptions made by reserve engineers. In addition, the results of drilling, testing and production activities may justify revisions of estimates that were made previously. If significant, such revisions could impact our strategy and change the schedule of any further production and development drilling. Accordingly, reserve estimates may differ significantly from the quantities of oil and natural gas that are ultimately recovered. Estimated Ultimate Recoveries, or "EURs," refers to estimates of the sum of total gross remaining proved reserves per well as of a given date and cumulative production prior to such given date for developed wells. These quantities do not necessarily constitute or represent reserves as defined by the SEC and are not intended to be representative of anticipated future well results of all wells drilled on our STACK acreage.

#### **USE OF PROJECTIONS**

This presentation contains projections for Alta Mesa and KFM, including with respect to their EBITDA, net debt to EBITDA ratio and capital budget, as well as Alta Mesa's production and KFM's independent auditors or Alta Mesa's independent petroleum engineering firm have audited, reviewed, compiled, or performed any procedures with respect to the projections for their inclusion in this presentation, and accordingly, none of them expressed an opinion or provided any other form of assurance with respect thereto for the purpose of this presentation. These projections are for illustrative purposes on a solid purpose as being necessarily indicative of future results. In this presentation, certain of the above-mentioned projected information has been repeated (in each case, with an indication that the information is subject to the qualifications presented herein), for purposes of providing comparisons with historical data. The assumptions and estimates underlying the projected information are inherently uncertain and are subject to a wide variety of significant business, economic and competitive risks and uncertainties that could cause actual results to differ materially from those contained in the projected information. Even if our assumptions and estimates are correct, projections are inherently uncertain due to a number of factors outside our control. Accordingly, there can be no assurance that the projected information in this presentation should not be regarded as a representation by any person that the results contained in the projected information will be achieved.

#### USE OF NON-GAAP FINANCIAL MEASURES

This presentation includes non-GAAP financial measures, including EBITDA and Adjusted EBITDAX. Please refer to the Appendix for a reconciliation of Adjusted EBITDAX to net (loss) income, the most comparable GAAP measure. We believe EBITDA and Adjusted EBITDAX are useful because they allow us to more effectively evaluate our operating performance and compare the results of our operations from period to period and against their peers without regard to financing methods of capital structure. The computations of EBITDA and Adjusted EBITDAX may not be comparable to other similarly titled measures of other companies. We exclude the items listed in the Appendix from net (loss) income in arriving at Adjusted EBITDAX because these amounts can vary substantially from company to company within our industry depending upon accounting methods and book values of assets, capital structures and the method by which the assets were acquired. Adjusted EBITDAX should not be considered as an alternative to, or more meaningful than, net income as determined in accordance with GAAP or as an indicator of our operating performance or liquidity. Certain items excluded from Adjusted EBITDAX are significant components in understanding and assessing a company's financial performance, such as a company's cost of capital and tax structure, as well as the historic costs of depreciable assets, none of which are components of Adjusted EBITDAX. Our presentation of Adjusted EBITDAX should not be construed as an inference that its results will be unaffected by unusual or non-recurring items.

#### INDUSTRY AND MARKET DATA

This presentation has been prepared by us and includes market data and other statistical information from sources we believe to be reliable, including independent industry publications, government publications or other published independent sources. Some data is also based on our good faith estimates, which are derived from our review of internal sources as well as the independent sources described above. Although we believe these sources are reliable, we have not independently verified the information and cannot guarantee its accuracy and completeness.

#### TRADEMARKS AND TRADE NAMES

We own or have rights to various trademarks, service marks and trade names we use in connection with the operation of our business. This presentation also contains trademarks, service marks and trade names of third parties, which are the property of their respective owners. The use or display of third parties' trademarks, service marks, trade names or products in this presentation is not intended to, and does not imply, a relationship with us, or an endorsement or sponsorship by or of us. Solely for convenience, the trademarks, service marks and trade names referred to in this presentation may appear without the ®, TM or SM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the right of the applicable licensor to these trademarks, service marks and trade names.



## **Production Data and Public Sales Data**

## Purpose and scope of analysis

## Purpose

- Provide recently-audited EUR data by well
- Summarize assessment of public data compared to actual production
- Evaluate 2017 actual average well performance
- Provide context for reliability of monthly public data

## Scope of Analysis

- FUR data
  - Share audited YE 2017 EUR results
  - Identify wells excepted from reserve distribution and describe exceptions
- Public data
  - Use wells in distribution to view public production data relative to type curve
  - Well-by-well, month-by-month comparison of Alta Mesa wellhead oil and gas production with Oklahoma public sales data
  - Timing: January 2016 through October 2017
  - Public data is latest available (October 2017) from DrillingInfo



## **Production Data and Public Sales Data**

Oil data consistent - Gas data significantly different

**Key Point:** Unlike states where the producer reports wellhead production to the state regulator body (Texas – TRRC, Louisiana – DNR), in Oklahoma the purchaser reports sales to the Oklahoma Tax Commission

### **Findings**

#### Production and sales data for oil compare very closely

- Production data slightly higher than sales at any given time due to the lag time with tank sales
- Public data accurately reflect purchaser reporting, few errors
- Later month sale volumes are much lower than production mostly due to slow reporting of new wells
- Most oil sold at wellhead tank/facility; some sold through LACT meters which are highly accurate

	Oil Prod	Public-Sales	Sales/Prod
Data Range	Bbls	Bbls	Ratio
Jan 16 - Dec 16	3,624,751	3,615,173	100%
Jan 16 - Mar 17	4,912,056	4,896,052	100%
Jan 16 - Jun 17	6,268,169	6,243,932	100%
Jan 16 - Sep 17	7,743,963	7,662,848	99%
Jan 16 - Oct 17	8,308,805	8,163,621	98%
Jan 17 - Mar 17	1,287,305	1,280,879	100%
Apr 17 - Jun 17	1,356,113	1,347,880	99%
Jul 17 - Sep 17	1,475,793	1,418,916	96%
Oct 17	564,842	500,773	89%

### Gas production data and sales data vary

- Sales volumes may be reported from different sales points (plant inlet, CRP, wellhead); production volumes impacted by lease fuel, lift gas, line losses, flaring, etc.
- At a well level, wellhead volumes may be impacted by allocation of volumes (provided to purchaser by producer) and allocated sales at the well are reported by the purchaser
- Public sales volumes can lag several months

	Gas Prod	Public-Sales	Sales/Prod
Date Range	MCF	MCF	Ratio
Jan 16 - Dec 16	14,065,268	12,173,355	87%
Jan 16 - Mar 17	19,171,418	17,308,061	90%
Jan 16 - Jun 17	24,868,391	23,469,599	94%
Jan 16 - Sep 17	31,423,698	29,231,740	93%
Jan 16 - Oct 17	33,610,729	29,477,182	88%
Jan 17 - Mar 17	5,106,150	5,134,706	101%
Apr 17 - Jun 17	5,696,973	6,161,538	108%
Jul 17 - Sep 17	6,555,307	5,762,141	88%
Oct 17	2,187,031	245,442	11%



## **Year End Proved Reserves**

## Reconciliation with public production data

- YE 2017 proved reserves based on a distribution of 146 producing wells
- Oil EURs are broadly consistent north to south; with averages lagging in north (township 19N)
  - Northern area includes 4 wells in township 19N 5W, 19 wells in 19N 6W
  - 19N wells have shortest average lateral length at about 250' less than average
- Exceptions from distribution consider various factors (listed in Appendix); examples:
  - Generation 1.0 and 1.5 completions
  - Pattern tests at closer than 750' between laterals
  - Early-period wells with casing failure or fracture-stimulated at lower intensity due to casing concerns
  - Four isolated wells with high water (two in Section 19 of 19N6W optimized with artificial lift late 2017, not included in YE17 distribution)
  - Six wells pending artificial lift optimization

AREA	EUR, MBO	EUR, MMCF	LATERAL	# WEI	LS		
Average 15N	267	1,959	4,724	18	<del></del>	Souther	n Area
Average 16N	249	1,962	4,660	14			
Average 17N	260	2,174	4,779	69		Central	Area
Average 18N	251	1,806	4,646	20			
Average 19N	224	757	4,438	23		Norther	n Area
Average 20N	370	1,057	4,771	2			
Average YE17							
Distribution	254	1,838	4,689	146	<u></u>	Well	Corp
	МВО	MMCF	2-phase N	1BOE	3-Phase MBOE*	IRR	IRR
Type Curve	250	1,868	561	8	651	61%	76%
Normalized to 10,000'	533	3,984	1,197		1,388		

Technical EUR based on audited reserves, 3-phase with ethane rejection

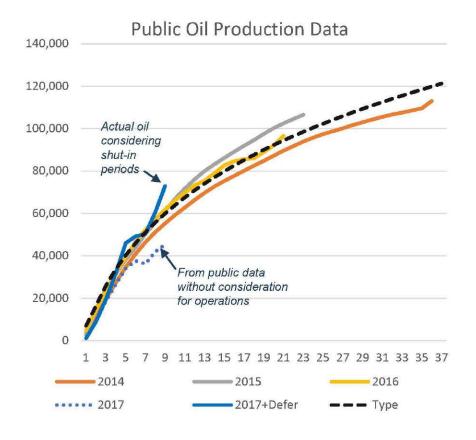
<sup>\* 3-</sup>Phase MBOE assumes KFM connection with 15% shrink and 73 bbls/mmcf NGL yield with ethane rejection

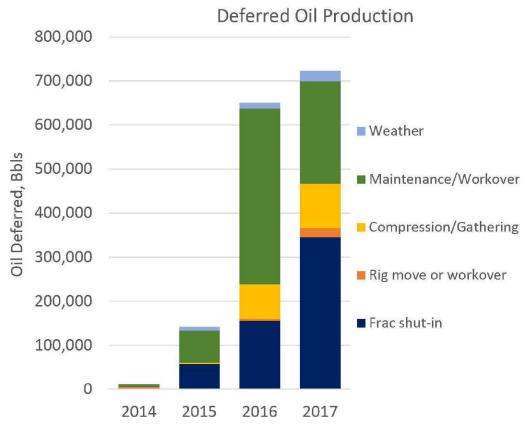


# Alta Mesa Resources Production/Sales Analysis

2015-2017 trending above type curve

- Detailed well reserves provide confidence in reserve assessments
- Public oil sales data were derived from DrillingInfo for wells in Alta Mesa's distribution for further analysis of other factors
- Data illustrate 2014 and 2015 trend upward; 2016 and 2017 public data suggest other factors are at play
- Key Finding: operational factors such as shut-in and deferred production must be understood, as shown below
  - As wells come on production, more rigs are introduced and more patterns are drilled, or downtime factors emerge
  - Most downtime is related to compression, offset frac, short-term water hit from an offset frac, and wells awaiting repair or lift optimization
  - Of 84 wells that started producing oil in 2017, 55 were subjected to downtime, deferring approximately 185,000 bbls of oil
  - Accounting for deferred production results in "2017 + Defer" average rate shown below





# **APPENDIX**





API	WELL	SEC	TWN	RNG	IP_DATE	IP_YEAR	AREA	TECH_EUR_MBO	TECH_EUR_MMCF	SEC_EUR_MBO	SEC_EUR_MMCF	LATERAL
3507325252	Cronkite 1505 4-14MH	14	15N	05W	10/8/2016	2016		202	957	165	644	4,808
3507325439	Shiner 1505 1-3MH	3	15N	05W	4/13/2017	2017		183	1,355	165	1,123	4,899
3507325417	Best Thirty 1505 1-5MH	5	15N	05W	3/6/2017	2017		109	464	82	387	4,865
3507325375	Redbreast 1505 4-7MH	7	15N	05W	12/15/2016	2016		269	1,990	250	1,715	4,709
3507325378	Yellowstone 1505 4-8MH	8	15N	05W	2/13/2017	2017		290	2,432	275	2,186	4,730
3507325318	Martin 1505 4-9MH	9	15N	05W	9/17/2016	2016		310	3,891	300	3,646	4,795
3507325272	Dixon 1505 3-16MH	16	15N	05W	10/20/2016	2016		309	2,722	295	2,465	4,858
3507325336	Three Wood 1505 4-17MH	17	15N	05W	12/6/2016	2016		291	2,540	275	2,257	4,634
3507325517	Aberlour 1505 1-18MH	18	15N	05W	10/15/2017	2017		181	1,908	168	1,654	4,772
3507325731	Samuel 1505 1-29MH	29	15N	05W	10/6/2017	2017		336	2,410	325	2,242	4,862
3507325461	Red Queen 1506 1-1MH	1	15N	06W	3/25/2017	2017		183	2,005	173	1,788	4,078
3507325440	White King 1506 1-12MH	12	15N	06W	3/28/2017	2017		305	2,136	293	1,962	4,804
3507325481	Cheshire Cat 1506 1-13MH	13	15N	06W	7/20/2017	2017		306	2,814	292	2,560	4,655
3507325431	Huntsman 1506 2-23MH	23	15N	06W	4/16/2017	2017		319	2,287	308	2,115	4,558
3507325457	Huntsman 1506 4-23MH	23	15N	06W	4/25/2017	2017		278	1,516	262	1,344	4,766
3507325611	Old Crab 1506 1-24MH	24	15N	06W	7/17/2017	2017		366	2,442	349	2,194	4,765
3507325370	White Rabbit 1506 2-27MH	27	15N	06W	11/30/2016	2016		313	722	275	580	4,811
3507325364	Mad Hatter 1506 2-34MH	34	15N	06W	12/9/2016	2016		263	665	225	523	4,670
							Average 15N	267	1,959	249	1,743	4,724
2507225191	Helen 1605 5-33MH	22	16N	05W	2/13/2016	2016		236	1,790	219	1,554	4,620
						-						
	Rudd 1605 2A-5MH		16N	05W	8/5/2016	100000000000000000000000000000000000000		183	2,055	162	1,535	4,010
	McLovin 1605 1-6MH		16N	05W	10/15/2017	2017		150	1,343	134	1,106	4,182
	Jacob 1605 1-8MH		16N	05W	10/2/2017	2017		358	2,609	342	2,383	4,812
	Aberfeldy 1605 4-16MH	70000	16N	05W	7/21/2017	2017		237	1,706	217	1,452	4,756
CONTRACTOR OF STREET OF STREET	Hasley 1605 1-28MH	matrices.	16N	05W	6/11/2017	2017		323	2,186	304	1,944	4,742
	Oak Tree 1605 2-30MH		16N	05W	9/27/2016			266	1,656	247	1,430	4,744
150000000000000000000000000000000000000	Dalwhinnie 1605 1-31MH		16N	05W	5/14/2017	2017		249	1,911	231	1,651	4,812
	PlumpJack 1605 1-34MH	7.5	16N	05W	6/30/2017	2017		208	1,858	193	1,602	4,797
	Opus One 1605 1-35MH		16N	05W	7/28/2017	2017		157	1,192	136	944	4,569
	Aces High 1606 4-11MH	71.5.0	16N	06W	5/24/2017	2017		167	2,219	153	1,748	4,776
	Peat 1606 1-26MH	30000	16N	06W	6/1/2017	2017		241	1,657	228	1,484	4,743
	Speyside 1606 1-27MH		16N	06W	6/3/2017	2017		334	2,533	322	2,344	4,851
3507325562	Sadiebug 1606 1-35MH	35	16N	06W	7/18/2017			378	2,757	367	2,584	4,820
							Average 16N	249	1,962	233	1,697	4,660



API	WELL	SEC	TWN	RNG	IP_DATE	IP_YEAR	AREA	TECH_EUR_MBO	TECH_EUR_MMCF	SEC_EUR_MBO	SEC_EUR_MMCF	LATERAL
3507324950	Kilgore 2-4H	4	17N	05W	9/27/2014	2014		192	2,766	191	2,738	4,599
3507324972	Humphrey 2-5H	5	17N	05W	11/13/2014	2014		175	2,214	165	1,908	4,691
3507324958	Beyer 4-6H	6	17N	05W	10/21/2014	2014		181	2,555	181	2,555	4,452
3507325005	Burpo 1705 2-7MH	7	17N	05W	4/30/2015	2015		260	2,673	250	2,435	4,665
3507325087	Borelli 1705 5-8MH	8	17N	05W	7/9/2015	2015		225	1,935	215	1,733	4,809
3507325096	Dodd 1705 3-8MH	8	17N	05W	7/6/2015	2015		295	1,941	285	1,783	4,810
3507325017	Borelli 1705 4-8MH	8	17N	05W	6/17/2015	2015		246	3,860	237	3,414	4,821
3507325154	Hoskins 1705 2-9MH	9	17N	05W	11/10/2015	2015		486	3,424	469	3,158	4,693
3507325148	Power 1705 2-16MH	16	17N	05W	12/2/2015	2015		157	2,014	145	1,735	4,736
3507324941	Pool 2-17H	17	17N	05W	9/4/2014	2014		145	1,966	135	1,676	4,362
3507325032	Ash 1705 3-19MH	19	17N	05W	3/27/2015	2015		321	2,552	296	1,874	4,681
3507324919	Copeland 4-20H	20	17N	05W	7/12/2014	2014		235	2,775	225	2,483	4,681
3507325054	Bollenbach 1705 4-21MH	21	17N	05W	10/2/2015	2015		422	3,822	410	3,602	4,820
3507325125	Bollenbach 1705 2-27MH	27	17N	05W	10/1/2015	2015		331	3,303	319	3,073	4,784
3507325081	Oswald 1705 4-28MH	28	17N	05W	10/14/2015	2015		211	1,918	198	1,698	4,808
3507325079	Oswald 1705 5-28MH	28	17N	05W	10/1/2015	2015		298	2,698	286	2,479	4,813
3507325080	Oswald 1705 6-28MH	28	17N	05W	10/6/2015	2015		309	3,398	299	3,181	4,815
3507324908	Bollenbach 2-29H	29	17N	05W	7/11/2014	2014		490	2,833	479	2,675	3,886
3507325053	Bollenbach 1705 6-30MH	30	17N	05W	12/7/2015	2015		413	4,910	407	4,717	4,795
3507325176	Shackelford 1705 5-31MH	31	17N	05W	12/2/2015	2015		262	3,059	249	2,780	4,785
3507325340	Gregory 1705 6-1MH	1	17N	05W	10/25/2016	2016		195	1,857	178	1,600	4,833
3507325534	Alicat 1705 1-2MH	2	17N	05W	6/26/2017	2017		176	1,890	163	1,628	4,919
3507325217	Matheson 1705 5-10MH	10	17N	05W	8/10/2016	2016		296	2,578	283	2,329	4,765
3507325352	Rigdon 1705 6-11MH	11	17N	05W	12/13/2016	2016		421	3,344	407	3,081	4,827
3507325339	Clark 1705 5-12MH	12	17N	05W	10/16/2016	2016		412	3,384	388	2,549	4,657
3507325462	Fazio 1705 1-13MH	13	17N	05W	3/20/2017	2017		290	3,665	280	3,372	4,566
3507325646	Ash 1705 4C-19MH	19	17N	05W	11/6/2017	2017		135	1,037	120	840	4,768
3507325537	Ash 1705 5A-19MH	19	17N	05W	11/10/2017	2017		279	2,247	266	2,040	4,771
3507325626	Ash 1705 4A-19MH	19	17N	05W	11/5/2017	2017		216	2,037	205	1,828	4,780
3507325553	Ash 1705 4B-19MH	19	17N	05W	12/12/2017	2017		260	2,110	247	1,904	4,782
3507325609	Ash 1705 5C-19MH	19	17N	05W	11/12/2017	2017		126	820	108	640	4,783
3507325530	Ash 1705 5B-19MH	19	17N	05W	12/22/2017	2017		259	1,988	246	1,785	4,811
3507325428	Sawgrass 1705 1-32MH	32	17N	05W	4/4/2017	2017		83	217	56	146	4,807
3507325254	Todd 1706 6-4MH	4	17N	06W	7/11/2016	2016		302	2,054	286	1,820	5,019



API	WELL	SEC	TWN	RNG	IP_DATE	IP_YEAR	AREA	TECH_EUR_MBO	TECH_EUR_MMCF	SEC_EUR_MBO	SEC_EUR_MMCF	LATERAL
3507325245	Themer 1706 6-6MH	6	17N	06W	6/12/2016	2016		256	1,097	233	920	5,047
3507325179	Coleman 1706 4-9MH	9	17N	06W	11/29/2015	2015		311	561	275	525	4,860
3507324963	Musick 4-11H	11	17N	06W	11/30/2014	2014		112	1,313	102	1,089	4,459
3507325063	Bates 1706 3-12MH	12	17N	06W	10/29/2015	2015		161	2,020	161	2,022	4,786
3507324927	House 4-13H	13	17N	06W	8/2/2014	2014		98	1,132	88	927	4,261
3507325153	Schilde 1706 3-15MH	15	17N	06W	11/26/2015	2015		270	1,361	254	1,197	4,857
3507325156	Mayes 1706 3-16MH	16	17N	06W	12/2/2015	2015		269	2,276	259	2,082	4,797
3507325249	Mayes 1706 7B-16MH	16	17N	06W	6/22/2016	2016		138	1,835	122	1,363	4,846
3507325189	Foster 1706 5-24MH	24	17N	06W	7/31/2016	2016		206	1,449	190	1,242	4,814
3507325211	Wakeman 1706 6-25MH	25	17N	06W	5/31/2016	2016		318	3,849	308	3,592	4,842
3507325177	James 1706 5-26MH	26	17N	06W	12/24/2015	2015		239	2,185	224	1,922	4,748
3507325201	Paris 1706 5-28MH	28	17N	06W	3/9/2016	2016		227	1,828	203	1,292	4,754
3507325583	The Trick 1706 1-2MH	2	17N	06W	8/18/2017	2017		247	1,438	231	1,256	4,951
3507325328	Pinehurst 1706 5-5MH	5	17N	06W	10/11/2016	2016		251	2,154	228	1,595	5,061
3507325667	Themer 1706 3-6MH	6	17N	06W	12/3/2017	2017		148	1,850	139	1,623	4,883
3507325685	Themer 1706 5-6MH	6	17N	06W	11/29/2017	2017		260	1,988	189	1,701	5,032
3507325708	Themer 1706 4-6MH	6	17N	06W	11/29/2017	2017		330	2,040	313	1,825	5,041
3507325666	Themer 1706 2-6MH	6	17N	06W	12/1/2017	2017		311	1,281	187	1,025	5,045
3507325682	Themer 1706 7-6MH	6	17N	06W	12/19/2017	2017		259	1,988	244	1,764	5,046
3507325684	Themer 1706 8-6MH	6	17N	06W	12/23/2017	2017		259	1,988	244	1,764	5,058
3507325295	Tullamore 1706 4-7MH	7	17N	06W	8/26/2016	2016		242	1,104	220	907	4,830
3507325195	Francis 1706 5-8MH	8	17N	06W	10/7/2016	2016		239	1,289	218	1,089	4,856
3507325532	Freeman 1706 3-14RMH	14	17N	06W	7/23/2017	2017		332	2,890	319	2,658	4,776
3507325305	Dalmore 1706 4-17MH	17	17N	06W	10/12/2016	2016		231	1,474	211	1,237	4,750
3507325298	Evelyn 1706 5-18MH	18	17N	06W	8/15/2016	2016		416	1,585	392	1,409	4,857
3507325304	Boecher 1706 4-19MH	19	17N	06W	9/16/2016	2016		301	1,977	270	1,424	4,832
3507325463	Motorhead 1706 4-20MH	20	17N	06W	5/2/2017	2017		259	1,609	239	1,379	4,801
3507325236	Gilbert 1706 6-21MH	21	17N	06W	6/21/2016	2016		291	4,354	281	4,023	4,738
3507325271	Barbara 1706 3-22MH	22	17N	06W	10/14/2016	2016		271	196	235	196	4,812
3507325648	Foster 1706 6B-24MH	24	17N	06W	11/8/2017	2017		202	1,625	186	1,391	4,770
3507325621	Foster 1706 7-24MH	24	17N	06W	11/26/2017	2017		259	2,106	246	1,888	4,780
3507325222	Brown 1706 6-27MH	27	17N	06W	3/3/2016	2016		358	3,022	344	2,775	4,850
3507325410	Nicklaus 1706 1-29MH	29	17N	06W	2/4/2017	2017		140	323	104	323	4,599
3507325599	Shutler 1706 1-32MH	32	17N	06W	9/13/2017	2017		273	1,855	254	1,619	4,852
3507325268	Lankard 1706 6-34MH	34	17N	06W	9/16/2016	2016		363	3,148	350	2,902	4,855
						Aver	age 17N	260	2,174	243	1,931	4,779



API	WELL	SEC	TWN	RNG	IP_DATE	IP_YEAR AREA	TECH_EUR_MBO	TECH_EUR_MMCF	SEC_EUR_MBO	SEC_EUR_MMCF	LATERAL
3507324900	LNU 13-3H	28	18N	05W	5/28/2014	2014	303	2,364	293	2,193	5,059
3507324887	Heller 5-33H	33	18N	05W	4/16/2014	2014	221	1,878	212	1,706	4,580
3507325326	Pollard 1805 3-2MH	2	18N	05W	2/17/2017	2017	169	1,216	152	992	4,659
3507325751	Elixir 1805 1-8MH	8	18N	05W	12/14/2017	2017	259	2,106	246	1,879	4,835
3507325504	Exaggerator 1805 1-10MH	10	18N	05W	6/20/2017	2017	80	460	56	265	4,426
3507325360	Vadder 1805 2-12RMH	12	18N	05W	11/16/2016	2016	320	4,115	310	3,826	4,504
3507325353	Oltmanns 1805 6-14MH	14	18N	05W	11/4/2016	2016	287	3,760	277	3,459	4,930
3507325214	Crosswhite 1805 3-20MH	20	18N	05W	4/7/2016	2016	152	886	133	669	4,728
3507325316	Edwin 1805 4-22MH	22	18N	05W	11/28/2016	2016	238	2,475	227	2,226	4,259
3507325215	Cleveland 1805 2-26MH	26	18N	05W	8/18/2016	2016	356	2,271	340	2,047	4,645
3507325047	EHU 227H	4	18N	06W	4/15/2015	2015	150	1,390	140	1,206	3,681
3507325627	Cobra 1806 1-8MH	8	18N	06W	10/25/2017	2017	193	2,062	181	1,811	4,448
3507325403	Macallan 1806 4-17MH	17	18N	06W	4/16/2017	2017	153	1,523	138	1,256	4,795
3507325320	Weber 1806 3-22MH	22	18N	06W	11/29/2016	2016	79	185	53	137	4,797
3507325647	Wendt 1806 1-26MH	26	18N	06W	8/21/2017	2017	436	2,192	418	1,997	4,782
3507325307	Mitchell 1806 2B-27MH	27	18N	06W	11/21/2016	2016	368	1,030	334	888	4,598
3507325728	Towne 1806 1-31MH	31	18N	06W	9/28/2017	2017	248	1,975	233	1,722	4,834
3507325561	Farrar 1806 1-32MH	32	18N	06W	6/25/2017	2017	296	1,383	276	1,186	4,787
3507325524	McNulty 1806 1-33MH	33	18N	06W	6/28/2017	2017	442	2,379	423	2,151	4,818
3507325490	Steele 1806 1-34RMH	34	18N	06W	5/13/2017	2017	265	471	233	282	4,762
						Average 18N	251	1,806	234	1,595	4,646



API	WELL	SEC	TWN	RNG	IP_DATE	IP_YEAR	AREA	TECH_EUR_MBO	TECH_EUR_MMCF	SEC_EUR_MBO	SEC_EUR_MMCF	LATERAL
3507325566	Buttercup 1905 1-5MH	5	19N	05W	9/13/2017	2017		108	489	87	347	4,418
3507325408	Augusta 1905 1-6MH	6	19N	05W	2/23/2017	2017		187	862	166	699	4,380
3507325601	Stags Leap 1905 1-7MH	7	19N	05W	9/18/2017	2017		246	1,106	228	946	4,546
3507325629	Raisin Cane 1905 1-8MH	8	19N	05W	9/23/2017	2017		212	1,308	199	1,149	4,406
3507324883	EHU 219H	11	19N	06W	4/28/2014	2014		284	1,062	278	1,010	4,950
3507324905	EHU 218H	13	19N	06W	9/8/2014	2014		173	1,114	164	994	3,657
3507324952	EHU 220H	22	19N	06W	11/16/2014	2014		373	1,271	357	1,131	3,651
3507324906	EHU 217H	24	19N	06W	9/16/2014	2014		202	797	186	656	3,696
3507324953	EHU 221H	27	19N	06W	12/15/2014	2014		261	1,105	245	964	3,668
3507324977	EHU 222H	28	19N	06W	12/27/2014	2014		143	379	127	310	3,614
3507324976	EHU 223H	33	19N	06W	2/12/2015	2015		99	306	97	166	3,677
3507325046	EHU 226H	33	19N	06W	4/16/2015	2015		191	1,282	181	1,154	3,876
3507325643	Slugworth 1906 1-1MH	1	19N	06W	9/2/2017	2017		255	1,054	237	913	4,316
3507325610	EHU 236H	4	19N	06W	8/13/2017	2017		283	207	267	148	4,683
3507325266	Shimanek 1906 2-6MH	6	19N	06W	9/11/2016	2016		240	23	204	23	4,704
3507325474	EHU 240H	9	19N	06W	8/27/2017	2017		129	4	113	4	4,980
3507325536	EHU 239H	9	19N	06W	9/14/2017	2017		248	129	232	146	5,027
3507325535	EHU 237H	9	19N	06W	8/30/2017	2017		173	1,177	166	1,090	5,108
3507325492	Fowler 1906 1-12MH	12	19N	06W	6/3/2017	2017		232	896	210	754	4,799
3507325264	Hawk 1906 7-13MH	13	19N	06W	8/23/2016	2016		190	495	152	369	4,813
3507325223	EHU 234H	20	19N	06W	5/5/2016	2016		173	84	158	84	5,224
3507325224	EHU 235H	29	19N	06W	5/1/2016	2016		456	926	440	660	5,300
3507325542	Scout 1906 1-34MH	34	19N	06W	10/14/2017	2017		282	1,337	261	1,139	4,586
							Average 19N	224	757	207	646	4,438
3507325515	Bugabago 2006 1-31MH	31	20N	06W	6/12/2017	2017		502	1,495	481	1,355	4,774
3507325071	Maly 32-M1-H	32	20N	06W	9/10/2017	2017		237	618	200	476	4,768
							Average 20N	370	1,057	341	915	4,771
							Average All	254	1,838	237	1,623	4,689



## Exceptions to Distribution (Township, Range, Section, Generation, Reason)

API	WELL	SEC	TWN	RNG	IP_DATE	IP_YEAR	TECH_EUR_MBO	TECH_EUR_MMCF	SEC_EUR_MBO	SEC_EUR_MMCF	LATERAL	REASON
3507325256	Airheart 1505 5-4MH	4	15N	05W	7/4/2016	2016	138	1,051	122	838	4,870	Pending Lift Optimization
3507325182	Elling 1505 2-15MH	15	15N	05W	2/25/2017	2017	119	512	93	388	4,838	Csg, Low Frac Pump Rate
3507325451	Huntsman 1506 3-23MH	23	15N	06W	6/17/2017	2017	14	0	4	0	4,554	Pending Lift Optimization
3507325397	Huntsman 1506 1-23MH	23	15N	06W	4/17/2017	2017	40	115	24	49	4,554	Pending Lift Optimization
3507325240	Ray 1605 3-27MH	27	16N	05W	5/22/2016	2016	164	1,568	143	1,151	4,833	Csg, Low Frac Pump Rate
3507325299	Garrett 1605 6A-36MH	36	16N	05W	7/14/2016	2016	103	898	86	690	4,737	Early area well; different landing
3507325464	Odie 1606 1-12MH	12	16N	06W	5/11/2017	2017	150	1,162	130	917	4,800	Pending Lift Optimization
3507324880	LNU 87-2H	3	17N	05W	3/14/2014	2014	1 <del>6</del> 2	1,869	152	1,636	4,552	Gen 1.5
3507324886	Horn 3-5H	5	17N	05W	4/13/2014	2014	181	1,892	179	1,682	4,577	Gen 1.5
507324844	Barker 4-17H	17	17N	05W	12/10/2013	2013	49	262	49	257	4,180	Gen 1
507324859	Michel 4-18H	18	17N	05W	1/1/2014	2014	34	337	33	330	4,576	Gen 1
507324831	Jech 1-20H	20	17N	05W	8/14/2013	2013	148	802	148	802	4,235	Gen 1
507324849	LSEPMU 7-3H	26	17N	05W	9/10/2013	2013	89	1,438	88	1,409		Gen 1
	Mackey 3-1H	20000	17N	06W	2/6/2014	2014	231	1,837	221	1,611	7.5000000	Gen 1.5
	Coleman 1706 6A-9MH	_	17N	06W	2/2/2017	2017	92	1,132	79	875	-	440' Test Pattern
	Coleman 1706 7A-9MH	9	17N	06W	2/1/2017	2017	42	709	36	540		440' Test Pattern
507325329	Coleman 1706 5B-9MH	9	17N	06W	2/3/2017	2017	104	553	81	377	4,809	440' Test Pattern
	Coleman 1706 5A-9MH	100	17N	06W	2/3/2017	2017	176	732	152	567		440' Test Pattern
Excession research	Coleman 1706 6B-9MH	-	17N	06W	2/4/2017	2017	53	514	53	514	10.70	440' Test Pattern
	Bullis 1706 1B-10MH	10000	17N	06W	2/4/2017	2017	51	419	38	262	-	440' Test Pattern
	Bullis 1706 1A-10MH	199500	17N	06W	2/4/2017	2017	13	0	9	0	1.0000000000000000000000000000000000000	440' Test Pattern
	Bullis 1706 2A-10MH	1000	17N	06W	2/1/2017	2017	79	947	67	714		440' Test Pattern
	Bullis 2-10H	2 60,750	17N	06W	4/4/2013	2013	88	417	88	417	360000000	Gen 1
	Simon 3-13H		17N	06W	3/2/2014	2014	77	684	65	522		Gen 1.5
200200000000000000000000000000000000000	Freeman 1706 3-14MH	3,000	17N	18888888	10/14/2015	2015	61	321	61	321	200000000	Casing Failure
	Trindle 1706 2B-31MH	1	17N	06W	9/23/2016	2016	114	1,613	102	1,365		Extended post-frac shut-in
	Wishbone 1805 5-4MH	-	18N	05W	1/12/2017	2017	44	3	23	3	100000000	Pending Lift Optimization
	Carey 1805 5-6MH	-	18N	05W	3/16/2017	2017	0	0	0	0		Pending Lift Optimization
	Nelson 1805 4-18MH	- 2	18N	05W	7/23/2016	2016	189	1,123	168	896		Csg, Low Frac Pump Rate
507324983			18N	05W	2/19/2015	2015	82	772	80	737		630' Test Pattern
	An annual contract of the contract	-	W. 1000/10	05W			241		231	1,646	120000	630' Test Pattern
507324907 507324928	SUSARREST AND ADDRESS.		18N	05W	6/14/2014	2014	369	1,791	359	1,931	10.000000	Character - Character Character Character
	A COLUMN TO A COLU	-	18N		8/31/2014	W. W. C. C. C. C.		2,051				630' Test Pattern
507324996		78000	18N	05W	2/15/2015	2015	89 84	1,159	80 74	850	20.500000000	630' Test Pattern
3507324997	PORTON MORNING ANTONIO		18N	05W	3/1/2015	2015	1000	773		597	100000000000000000000000000000000000000	630' Test Pattern
3507324839	AND THE PART OF THE PARTY OF TH	15,000	18N	05W	12/1/2013	2013	292	2,466	284	2,295	1000000	Gen 1.5
3507325376			18N	06W	2/26/2017	2017	34	395	33	358		Short Lateral
3507324866	A CONTRACTOR OF THE CONTRACTOR		19N	06W	3/19/2014	2014	134	160	118	156		Gen 1.5
507324855			19N	06W	1/21/2014	2014	32	0	32	0		Lift Optimization success - new
507325406		170000	19N	1000000	12/12/2017	2017	231	2,079	230	2,060		Lift Optimization success - new
507325407	300-000-000-000-000-000-000-000-000-000	-	19N	06W	3/24/2017	2017	0	1	0	1		Pending Lift Optimization
3507324805		-0.00	19N	06W	4/14/2013	2013	79	250	79	250		Gen 1
3507325192	A STOCK DESCRIPTION OF THE STOCK OF THE STOC	7,550	19N	06W	4/1/2016	2016	150	1,037	135	805		330' Test Pattern
3507325190			19N	06W	4/1/2016	2016	84	1,633	84	1,167		330' Test Pattern
507325188		2007	19N	06W	4/2/2016	2016	115	779	105	667	100000000000000000000000000000000000000	330' Test Pattern
507325191	EHU 232H	31	19N	06W	4/12/2016	2016	64	333	57	274		330' Test Pattern
							108	857	99	732	4,634	